

METHOD FOR ACCESSING A MEMORY HAVING A STORAGE SPACE LARGER THAN THE ADDRESSING CAPABILITY OF A MICROPROCESSOR

Abstract

A method for accessing a memory having a storage space larger than the addressing capability of a microprocessor. The method comprises storing an interrupt service routine in one of a plurality of memory banks, when an interrupt occurs, pushing a current program counter address onto a stack by an interrupt processing unit, and pushing a bank number of the current memory bank onto the stack. The method further comprises switching the microprocessor to the memory bank storing the interrupt service routine to execute the interrupt service routine, popping the bank number of the memory bank from the stack, restoring the popped bank number in the memory bank selector, popping the program counter address from the stack, and continuing executing the interrupted program.